

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

Claim 1 (Currently Amended) A white balance correcting device for correcting white balance of a picked-up image signals, comprising:

an image pickup device which picks-up image signals of an image pick-up plane;

a dividing part which divides a scope of the image pick up plane into a plurality of blocks;

a peak value acquiring part which acquires a peak value of brightness and color signal values corresponding to the peak value of brightness obtained in each of all of the plurality of blocks divided by said dividing part ~~a predetermined region of the image signals by said image pickup device~~;

an average value calculating part which calculates an average value of brightness and average values of color signal values obtained in each of all of the plurality of blocks divided by said dividing part ~~a predetermined region of the image signals by said image pick up device~~;

a comparison part which makes comparison between brightness information of the average value and the peak value;

a selection part which selects either of the values obtained by said average value calculating part or the values obtained by said peak value acquiring part according to comparison result by said comparison part; and

a white balance control part which controls white balance on the basis of the values selected by said selection part.

Claim 2 (Currently Amended) A white balance correcting device according to claim 1, wherein said comparison part computes comparison between a first integral value obtained by integrating average values obtained by said average value calculating part and a second integral value obtained by integrating peak values obtained in the ~~predetermined region~~ scope by said peak value acquiring part, and,

wherein said selection part selects the values obtained by said peak value acquiring part if the second integral value is not less than a predetermined number of times the first integral value, and said selection part selects the value obtained by said average value calculating part if the second integral value is less than the predetermined number of times the first value.

Claim 3 (Currently Amended) A white balance correcting device according to claim 2, further comprising:

a white determining part which determines whether the average value of color signal values calculated by said average value calculating part and the color signal values corresponding to the peak value of brightness acquired by said peak value acquiring part exist within a white range,

wherein said comparison part integrates values which have been determined to exist within the white range by said white determining part, in order to obtain the first integral value and the second integral value.

Claim 4 (Previously Presented) A white balance correcting device according to claim 1, wherein said peak value acquiring part acquires peak values of image signals from signals that

have beforehand been subjected to limitation for setting an upper limit to a signal level of the image signals picked-up by said image pick-up device.

Claim 5 (Previously Presented) A white balance correcting device according to claim 1, wherein said peak value acquiring part acquires the peak value from signals that have beforehand been subjected by a low-pass filter to limitation for setting an upper limit to a signal level of the image signals picked-up by said image pick-up device.

Claim 6 (Currently Amended) A white balance correcting device for correcting white balance of a picked-up image signal, comprising:

an inputting part which inputs picked-up image signal of an image pick-up plane;

a dividing part which divides a scope of the image pick up plane into a plurality of blocks;

a peak value acquiring part which acquires a peak value of brightness and color signal values corresponding to the peak value of brightness obtained in each of all of the plurality of blocks divided by said dividing part ~~a predetermined region of the image signals inputted by said inputting part;~~

an average value calculating part which calculates an average value of brightness and average values of color signal values obtained in each of all of the plurality of blocks divided by said dividing part ~~a predetermined region of the image signals inputted by said inputting part;~~

a comparison part which makes comparison between brightness information of the average value and the peak value;

a selection part which selects either of the values obtained by said average value calculating part or the values obtained by said peak value acquiring part according to the comparison result by said comparison part; and

a white balance control part which controls white balance on the basis of the values selected by said selection part.

Claim 7 (Previously Presented) A white balance correcting device according to claim 6, wherein said selection part selects the values obtained by said peak value acquiring part if the peak value is not less than a predetermined number of times the average value, and said selection part selects the values obtained by said average value calculating part if the peak value is less than the predetermined number of times the average value.

Claim 8 (Currently Amended) A white balance correcting method for correcting white balance of a picked-up image signals, comprising:

picking-up image signals of an image pick-up plane;

dividing a scope of the image pick-up plane into a plurality of blocks;

acquiring a peak value of brightness and color signal values corresponding to the peak value from the image signals obtained in each of all of the plurality of blocks divided in the dividing step ~~a predetermined region of the image signals picked up in said picking-up step;~~

calculating an average value of brightness and average values of color signal values from the image signals obtained in each of all of the plurality of blocks divided in the dividing step ~~a predetermined region of the image signals picked up in said picking-up step;~~

making comparison between brightness information of the average value and the peak value;

selecting either of the values obtained in said average value calculating step or the values obtained in said peak value acquiring step according to comparison result; and
controlling white balance on a basis of the values selected in said selection step.

Claim 9 (Previously Presented) A white balance correcting method according to claim 8,

wherein, in making comparison, computing a ratio between first integral value obtained by integrating average values obtained in said average value calculating step and a second integral value obtained by integrating peak values obtained in said peak value acquiring step,

wherein, the values obtained in said peak value acquiring step is selected by said selection if the second integral value is not less than a predetermined number of times the first integral value, and the values obtained in said average value calculating step is selected by said selection if the second integral value is less than the predetermined number of times the first integral value.

Claim 10 (Previously Presented) A white balance correcting method according to claim 9, further comprising:

determining whether the average value of color signal values calculated in said color average value calculating step and the color signal values corresponding to the peak value acquired in said peak value acquiring step exist within a white range,

wherein values which have been determined to exist within the white range in said white determining step are integrated to obtain the first integral value and the second integral value.

Claim 11 (Previously Presented) A white balance correcting method according to claim 8,

wherein peak values of the image signals are acquired in said peak value acquiring step from

signals that have beforehand been subjected to limitation for setting an upper limit to a signal level of the image signals picked-up in said image picking-up step.

Claim 12 (Previously Presented) A white balance correcting method according to claim 8, wherein peak values of the image signals are acquired in said peak value acquiring step from signals that have beforehand been subjected by a low-pass filter to limitation for setting an upper limit to a signal level of the image signals picked-up in said image picking-up step.

Claim 13 (Currently Amended) A white balance correcting method for correcting white balance of a picked-up image, comprising:

inputting a picked-up image signals of an image pick-up plane;

dividing a scope of the image pick up plane into a plurality of blocks;

acquiring peak value of brightness and color signal values corresponding to the peak value obtained in each of all of the plurality of blocks divided in the dividing step a predetermined region of the image signals inputted in said inputting step;

calculating an average value of brightness and average values of color signal values obtained in each of all of the plurality of blocks divided in the dividing step a predetermined region of the image signals inputted in said inputting step;

making comparison between information of the average value and the peak value;

selecting either of the values obtained in said average value calculating step or the values obtained in said peak value acquiring step according to comparison result; and

controlling white balance on the basis of the values selected by said selection.

Claim 14 (Previously Presented) A white balance correcting method according to claim 13,

wherein, the values obtained in acquiring a peak value step is selected by said selection if the peak value is not less than a predetermined number of times the average value in making comparison, and the value obtained in calculating an average value step is selected by said selection if the peak value is less than the predetermined number of times the average value in making comparison.

Claim 15 (Currently Amended) A storage medium which stores therein a program for executing a process for correcting white balance of a picked-up image signals, said process comprising:

picking-up image signals of an image pick-up plane;

dividing a scope of the image pick up plane into a plurality of blocks;

acquiring a peak value of brightness and color signal values corresponding to the peak value from the image signals obtained in each of all of the plurality of blocks divided in the dividing step ~~a predetermined region of the image signals picked-up in said picking-up step;~~

calculating an average value of brightness and average values of color signal values from the image signals obtained in each of all of the plurality of blocks divided in the dividing step ~~a predetermined region of the image signals picked-up in said picking-up step;~~

making comparison between brightness information of the average value and the peak value;

selecting either of the values of obtained in said average value calculating step or the values obtained in said peak value acquiring step according to comparison result; and

controlling white balance on a basis of the values selected in said selection step.

Claim 16 (Previously Presented) A storage medium according to claim 15,

wherein, in making comparison, computing a ratio between first integral value obtained by integrating average values obtained in said average value calculating step and a second integral value obtained by integrating peak values obtained in said peak value acquiring step,

wherein, the values obtained in said peak value acquiring step is selected by said selection if the second integral value is not less than a predetermined number of times the first integral value, and the values obtained in said average value calculating step is selected by said selection if the second integral value is less than the predetermined number of times the first integral value.

Claim 17 (Previously Presented) A storage medium according to claim 16, wherein said process further comprises:

determining whether the average value of color signal values calculated in said color average value calculating step and the color signal values corresponding to the peak value acquired in said peak value acquiring step exist within a white range;

wherein values which have been determined to exist within the white range in said white determining step are integrated to obtain the first integral value and the second integral value.

Claim 18 (Previously Presented) A storage medium according to claim 15, wherein peak values of the image signals are acquired in said peak value acquiring step from signals that have beforehand been subjected to limitation for setting an upper limit to a signal level of the image signals picked-up in said image picking-up step.

Claim 19 (Previously Presented) A storage medium according to claim 15, wherein peak values of the image signals are acquired in said peak value acquiring step from signals that

have beforehand been subjected by a low-pass filter to limitation for setting an upper limit to a signal level of the image signals picked-up in said image picking-up step.

Claim 20 (Currently Amended) A storage medium which stores therein a program for executing a process for correcting white balance of a picked-up image signals, said process comprising:

~~inputting part which inputs~~ a picked-up image signal of an image pick-up plane;
dividing a scope of the image pick-up plane into a plurality of blocks;
~~peak value acquiring part which acquires~~ a peak value of brightness and color signal values corresponding to the peak value of brightness obtained in each of all of the plurality of blocks divided in the dividing step a predetermined region of the image signals ~~inputted by said inputting part;~~

~~average value calculating part which calculates~~ an average value of brightness and average values of color signal values obtained in each of all of the plurality of blocks divided in the dividing step a predetermined region of the image signals ~~inputted by said inputting part;~~

~~making comparison part which makes~~ a comparison between brightness information of the average value and the peak value;

~~selection part which selects~~ selecting either of the values obtained by in said average value calculating ~~part~~ step or the values obtained by in said peak value acquiring ~~part~~ step according to the comparison result by in said comparison ~~part~~ step; and

controlling white balance control part which controls white balance on the basis of the values selected by said selection ~~part~~ step.

Claim 21 (Currently Amended) A storage medium according to claim 20,

wherein said selection part step selects the values obtained by said peak value acquiring part step if the peak value is not less than a predetermined number of times the average_value, and said selection part step selects the values obtained by said average value calculating part step if the peak value is less than the predetermined number of times the average value.

Claim 22 (Canceled)